

# Timeliness 2.0 Workgroup



**MAY 10, 2016 Meeting**

**Co-chairs:**  
**Cathy Wicklund**  
**Kellie Kelm**

# MEMBERSHIP



Cathy Wicklund, co-chair	Kellie Kelm, co-chair
Susan Tanksley, Texas PH Lab, APHL	Beth Tarini, pediatrician, researcher
Stephen McDonough, pediatrician	Dieter Matern, Mayo
Klaas Wierenga, pediatrician, geneticist	Ed McCabe, March of Dimes
Amy Gaviligio, Follow up, Minnesota	Emily Drake, Association of Women's Health, Obstetrics and Neonatal Nurses (AWHONN)
Bob Ostrander – family physician, AAFP	Erica Wright, Follow up, Colorado
George Dizikes, Tennessee Dept of Health	Stan Berberich, Iowa NBS Lab
Bill Morris, parent	Cate Walsh Vockley, genetic counselor
Joseph Bocchini, pediatrician, SACHDNC Chair	Neil MacVicar, parent, MHA Service Corp.
APHL	

# CHARGE



- Optimize successful strategies to address NBS specimen collection and transport
- Collect and disseminate timeliness specific practices from state NBS programs, including programs that have implemented efficiencies in collection, transport, screening and follow-up.
- Investigate strategies for improved standardization of communication of NBS results to providers and families

# **CHARGE 1: OPTIMIZE SUCCESSFUL STRATEGIES TO ADDRESS NBS SPECIMEN COLLECTION AND TRANSPORT & COLLECT AND DISSEMINATE TIMELINESS SPECIFIC PRACTICES FROM STATE NBS PROGRAMS:**



- Gather success stories from states/hospitals, etc.
  - In March, had presentations from Missouri and Utah on improvements in timeliness
  - Joint Commission
    - Call with Erin Dupree, Chief Medical Officer and Vice President for the Joint Commission Center for Transforming Healthcare

# Evaluation of Newborn Screening Production Processes

for all of Utah Newborn Screening

Andy Rohrwasser, PhD, MBA

# 4 Sub-Processes

**Sample Collection &  
Logistics**

**TAT:**  
0.8 – 6 days

Bottleneck

**Sample Receiving**

**TAT:**  
0.1 – 5 days

Bottleneck

**Sample Testing**

**TAT:**  
0.8 – 1.3 days

No bottleneck  
Close to capacity limit  
Mondays

**Reporting/Follow-up  
coordination**

**TAT:**  
> 1day

No bottleneck  
Close to capacity limit  
Mondays

Overall process: outside recommendations for >40% customers

# High pay-off solution: FedEx Partnership Courier Service for Hospitals with > 3days TAT

## Transport time

$$t = f(\text{distance, corporate status}); p < 0.005$$

**TAT: from 4.14 days to 2.9 days; costs \$19,832**

# Underperforming Hospitals

## Carrots and Sticks

### Carrot:

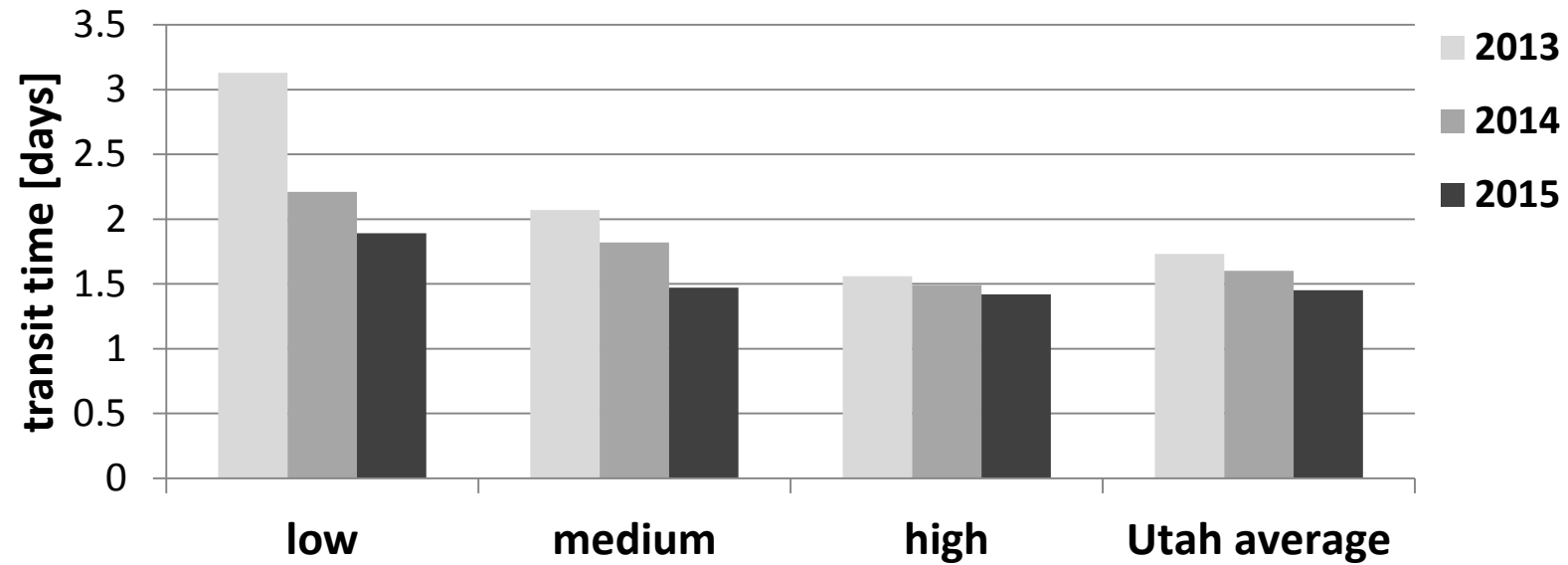
- Establish personal relationships
- Focus on real partner role and transparency
  - e.g. Unsat feed back
- Site Visits/Training/Process Consulting

### Stick:

- Rule Change: Mandated Sample collection between 24h and 48h of life



# Graph



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# 2<sup>nd</sup> Bottleneck: Operations Mo – Fri 8-5

Expanded NBS Service

## 7 Days Operations

**February 2015: 7-days operations**

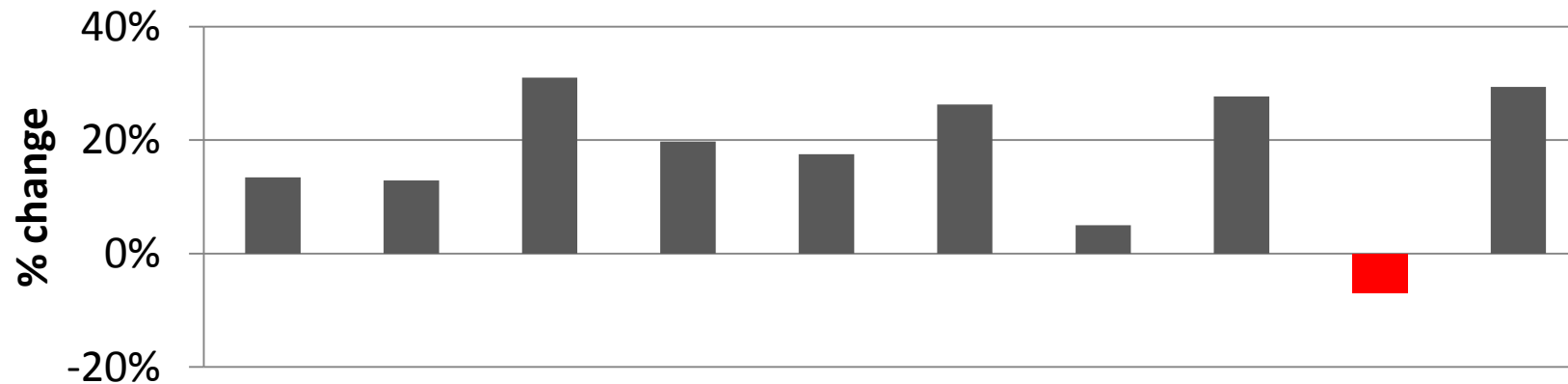
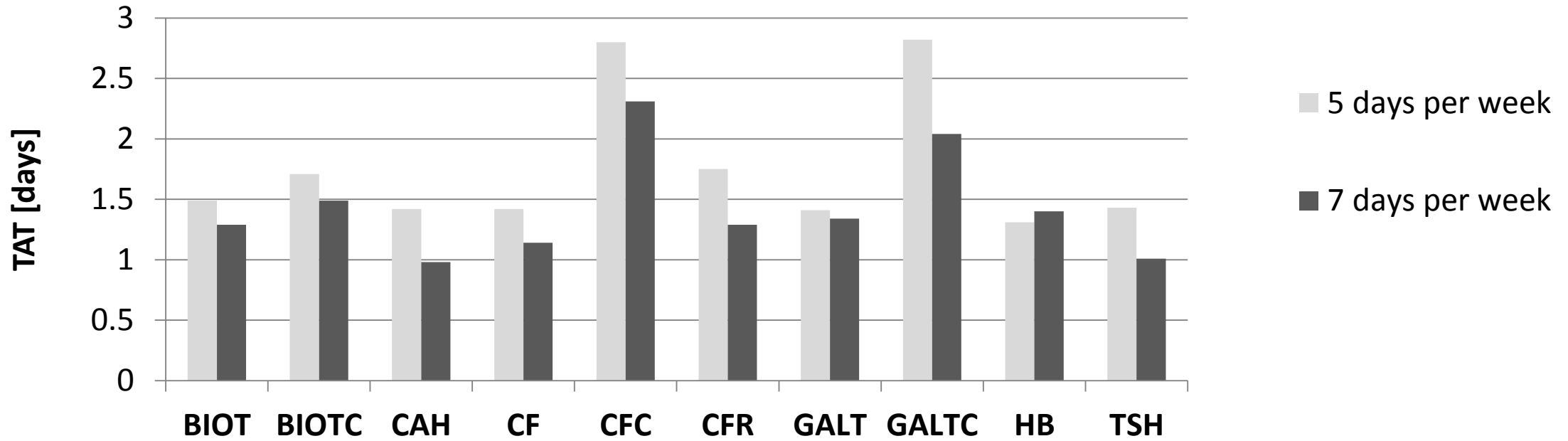
### Saturday

1. Specimen accessioning
2. Result reporting (Friday testing)
3. On-call Follow-up

### Sunday:

1. full day of testing (all tests)
2. On-call Follow-up

# Faster TAT through 7 day operations



# 3<sup>rd</sup> Bottleneck: SR

Problems:

- **Unmatched demand and supply environments**

**Solutions:**

- Temp workers for data entry only on high demand days
- Substitute manual data entry with expanded scanning and OCR

# **Timeliness Improvements: New Beginnings in Missouri**



**Patrick Hopkins, Chief of Missouri NBS Laboratory**

# Missouri's Principal Timeliness Issues

- No weekend or holiday courier pickup (the state contracted courier had the same days off as the State Laboratory).
- Smaller birthing hospitals were not provided courier (did not have enough births) so they were forced to utilize regular US Mail.
- State Laboratory did not work weekends.
- State Laboratory had several observed Monday holidays resulting in 3-day weekends.
- Some hospitals displayed logistical issues provoking delays internally.
- Lack of traceability for hospitals to promptly verify their samples were received by the State Laboratory.
- Lack of funding to remedy the above issues.

# Initial Improvements at No Cost to MSPHL

- Worked with hospitals who were not on the state courier system to self-transport their NBS samples to their nearest County Health Department (included midwives).
  - Contacted them individually to make them aware of the timeliness risk (to the baby and their institution).
  - Helped them identify the closest county health department available (some were within a mile) and made them aware of the daily scheduled pickup time.
  - Provided them a before and after transit time analysis to make available to their administrators and encourage them.

# Initial Improvements at No Cost to MSPHL

- Worked 1-on-1 with any hospitals displaying timeliness issues.
- Began providing customized monthly timeliness reports to Laboratory and OB managers in those institutions.
- Increased timeliness education overall
  - During routine phone conversations with nurseries, laboratories and PCP's.
  - NBS Regulations reminder on website... “samples must be sent to the MSPHL (not received) within 24 hours of collection”.
  - “Top 10 Reminders” Notice
  - Provided a Timeliness Improvement presentation to the Missouri Midwives Association.



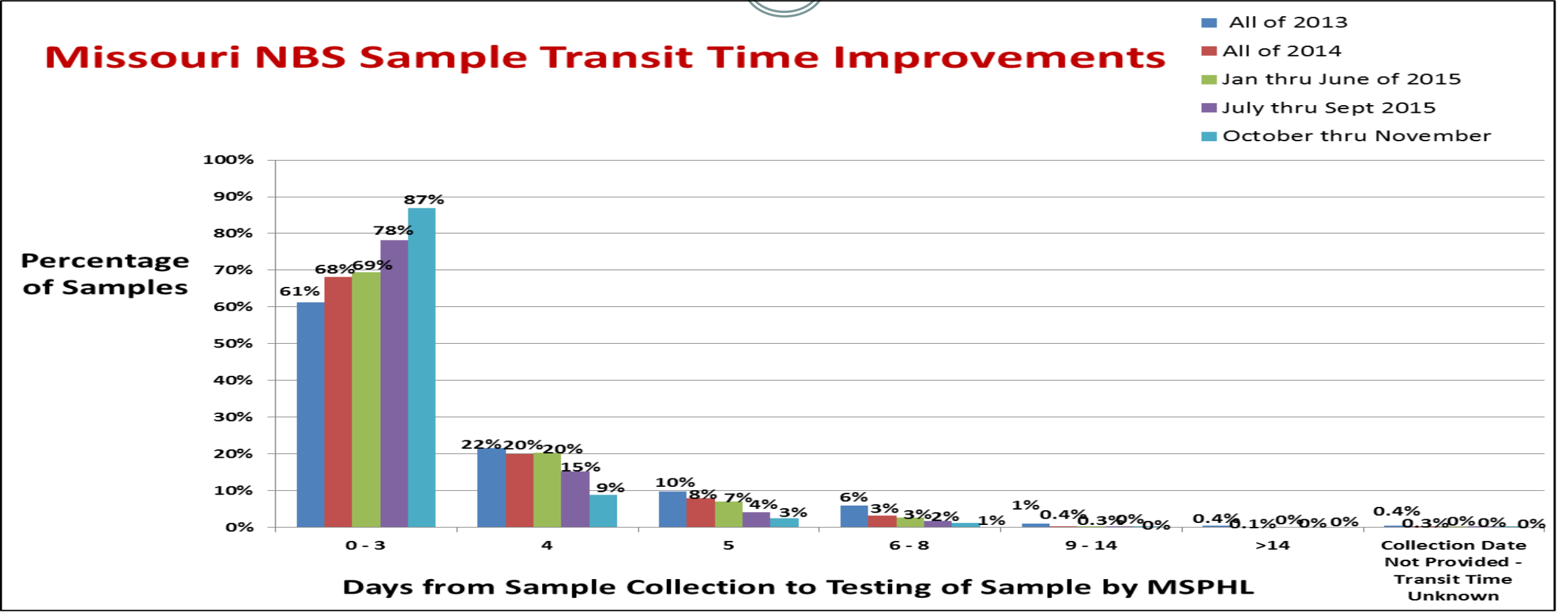
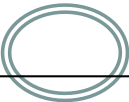
## Improvements Requiring Funding

- Implemented Holiday courier pickup January 1, 2014 (\$6,000 per year).
- NBS Laboratory received legislative funding to enhance the courier system and implement Saturday and Holiday testing (supported by a KC, MO legislator).
- Implemented Sunday courier pickups starting July 5, 2015 (\$36,000 per year).
- Added 8 more birthing hospitals to the current 46 routine hospital sites for the courier starting July 5, 2015 (\$44,000 per year).
- Implemented Saturday and Holiday testing beginning October 3, 2015 (\$200,000 per year).

# Missouri's Saturday/Holiday Work Model

- 100% voluntary staffing process
- A skeleton crew of 7 scientists work each Saturday/Holiday (excludes Thanksgiving, Christmas and New Years Day) and all screening tests are performed.
- Hired one FTE: A manager level to run the Saturday/Holiday expansion and supervise the adjunct staff.
- Two newest NBS lab employees are hired agreeing they will work Tuesday through Saturday until attrition allows them to move to M – F.
- Four other adjunct employees work each Sat/Holiday making straight-time pay (classified as secondary assignment staff).
  - Some are from our current NBS staff
  - Some are staff from other units in the State Laboratory that have been trained on one NBS laboratory method or platform
  - Saturday/Holiday staff sign up for the days that they would like to work. The pay for this is added to their regular paycheck.

# Missouri NBS Sample Transit Time Improvements



Holiday Courier Pickup Started January, 2014      Sunday Courier Pickup Started July, 2015      Saturday/Holiday Testing Began October, 2015

# The Missouri Newborn Screening Laboratory Report Access Portal



# What are the benefits of the portal?

- A secure website for hospitals to verify daily that the State NBS laboratory has received their samples.
  - Sample receipt verification is a new CAP requirement for them for all of their send-out samples.
  - They can notify the State Lab if they determine that samples may not have been received and investigations on both sides can commence quickly.
- Hospitals can print and/or save their own NBS lab reports from this site and not have to wait for them to come through the mail.
- Reduces the number of calls into the State Lab requesting NBS lab reports.
- Both submitting hospital and State Lab can become paperless.